Swivel Assembly

Abstract

A swivel assembly for a downhole tool string comprises a first and second coaxial housing cooperatively arranged. The first housing comprises a first transmission element in communication with surface equipment. The second housing comprises a second transmission element in communication with the first transmission element. The second housing further comprises a third transmission element adapted for communication with a network integrated into the downhole tool string. The second housing may be rotational and adapted to transmit a signal between the downhole network and the first housing. Electronic circuitry is in communication with at least one of the transmission elements. The electronic circuitry may be externally mounted to the first or second housing. Further, the electronic circuitry may be internally mounted in the second housing. The electronic circuitry may be disposed in a recess in either first or second housing of the swivel.